AMENDMENTS TO THE CLAIMS

1-75 (Cancelled)

76. (Currently Amended) A method of producing human definitive endoderm cells, said method comprising:

obtaining a cell population comprising pluripotent human cells; and

providing said cell population with a TGFβ superfamily growth factor and a Wnt-pathway activator, thereby generating in said cell population definitive endoderm cells expressing at least SOX17 and HNF3β.

77. (Previously Presented) The method of claim 76 further comprising removing TGFβ superfamily growth factor from said cell population.

78. (Previously Presented) The method of claim 76, wherein at least 50% of said pluripotent cells differentiate into definitive endoderm cells.

79. (Previously Presented) The method of claim 76, wherein said TGFβ superfamily growth factor is selected from the group consisting of Nodal, activin A and activin B.

80. (Previously Presented) The method of claim 76, wherein said TGFβ superfamily growth factor is activin A.

81. (Previously Presented) The method of claim 76, wherein said Wnt pathway activator is Wnt3a.

82. (Previously Presented) The method of claim 76, wherein at least 10 ng/ml activin A is provided.

83. (Previously Presented) The method of claim 76, wherein at least 100 ng/ml activin A is provided.

84. (Previously Presented) The method of claim 76 further comprising the step of providing serum to said cell population in increasing concentrations.

85. (Previously Presented) The method of claim 76, wherein said pluripotent cells comprise stem cells.

86. (Previously Presented) The method of claim 76, wherein said pluripotent cells comprise embryonic stem cells.

87. (Previously Presented) The method of claim 86, wherein said embryonic stem cells are derived from a tissue selected from the group consisting of the morula, the ICM of an embryo and the gonadal ridges of an embryo.

88. (New) The method of claim 76, wherein said Wnt-pathway activator is a Wnt family member.